Final Project Report

Las Vegas Strip Hotel Reviews Analysis

*Ivan Shapirov*

*4/27/2020*

# Business Understanding

## Business Problem

My project topic is on maximizing the reviews left on hotels in the Las Vegas Strip Area. The business problem is that a hotel corporation has opened a new hotel in the Las Vegas Strip, but they have received more negative reviews than their competitors, causing the number of tourists who select their hotel to decrease. The hotel is looking for some sort of data analytics solution so that they are able to increase the reviews left by customers on their hotels, increasing the number of customers who choose their hotel.

## Dataset

The dataset has 504 instances, with each instance representing a review left by a customer on a hotel in the Las Vegas Strip area on TripAdvisor. There are 20 features for each review.

5 of the features give information about the reviewer: Country of origin of the reviewer, continent of the reviewer, total number of reviews left by the reviewer, total number of hotel reviews left by the reviewer, and the number of years they were a member of TripAdvisor.

6 of the features were about the review: The number of “Helpful votes” (People who found the review helpful), the period of stay, the traveler type (solo, business, friends, etc.), the month the review was posted, the weekday the review was posted, and finally the score left by the reviewer.

3 of the features were about the hotel: The stars the hotel has, the number of rooms in the hotel, and the name of the Hotel.

The next 6 features give whether or not a specific amenity was provided: Pool, gym, tennis court, spa, casino, and free internet.

This dataset can be used in a couple of ways. One way is to focus more on which kind of customers are more likely to leave a good review. For example, it could be analyzed whether families are more likely to give good reviews compared to people traveling solo. This could give the company their target audience which they could advertise to. Another possibility is to focus more on the services provided by each hotel and seeing which services contribute more to a positive review and which services result in a more negative review.

## Proposed Analytics Solution

A solution to this problem is to analyze the reviews left by consumers at the hotels in the area and see which factors most contribute to the customer leaving a favorable review. The target variable will be the rating score left by the customer. The ratings on the dataset range from 3 to 5, even though lower scores are possible, so 3 will be considered the minimum score and 5 the maximum.

## Source for dataset

Moro, S., Rita, P., & Coelho, J. (2017). Stripping customers' feedback on hotels through data mining: The case of Las Vegas Strip. Tourism Management Perspectives, 23, 41-52.